

CLAIMS

1. Method for production of lime water comprising a step in which milk of lime is mixed with dilution water, in a saturator, characterised in that the said dilution water is water deionised by membrane
5 filtration, or by distillation, and / or by passage on an ion exchanger resin, and in that it includes a step consisting of adding silicate ions to the said deionised water.

2. Method according to claim 1, characterised in
10 that the said silicate is selected from the group composed of sodium silicate and potassium silicate.

3. Method according to claim 2, characterised in that the said silicate is sodium silicate.

4. Method according to any one of claims 1 to 3,
15 characterised in that the said water deionised by membrane filtration is water that has been subjected to a nano-filtration or a filtration by reverse osmosis.

5. Method according to any one of claims 1 to 4, characterised in that the said step for adding at least
20 one silicate consists of mixing the silicate with the filtered water by membrane filtration.

6. Method according to any one of claims 1 to 5, characterised in that the said step for adding at least a silicate to the deionised water consists of
25 introducing the said silicate in the said saturator.

7. Method according to any one of claims 1 to 6, characterised in that the said silicate is added to the said deionised water at a content of 5 mg/l to 40 mg/l, and preferably 10 mg/l to 20 mg/l, of SiO₂.

8. Installation for the production of limewater using the method according to any one of claims 1 to 7, the said installation comprising:

- at least one lime saturator (1),
- 5 - means (3) of bringing the dilution water into the said lime saturator,
- means (2) of bringing milk of lime into the said lime saturator,
- means (4) of evacuating the limewater
- 10 obtained by bringing the milk of lime into contact with the dilution water,
- means (13) of evacuating unburnt materials and / or precipitates,
- characterised in that it includes conveyance means (7)
- 15 for bringing at least one silicate into the dilution water.

9. Installation according to claim 8, characterised in that it includes means for mixing silicate with dilution water.

- 20 10. Installation according to claim 9, characterised in that the said mixing means include at least one mixer (11).

11. Installation according to claim 10, characterised in that the mixer (11) is a static mixer.

- 25 12. Installation according to any one of claims 8 to 11, characterised in that it comprises means (17) for measuring the quality of limewater produced in the saturator, and means (18) to vary the silicate dose brought in by the said conveyance means.

- 30 13. Installation according to claim 12, characterised in that the said means for measuring the

limewater quality are a turbidimeter (17) and / or a pH meter and / or conductivity measurement means.

14. Use of limewater obtained using a method according to any one of claims 1 to 7 in the context of
5 a method to remineralise water to be remineralised by the addition of limewater and carbon dioxide.